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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/100,569	06/19/1998	MICHAEL E BURKE	CASE-2-1-3-2	8701

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EXAMINER	
LIU, SHUWANG	

ART UNIT	PAPER NUMBER
2634	27

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/100,569	BURKE ET AL.	
	Examiner	Art Unit	
	Shuwang Liu	2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Request for Continued Examination

1. The request filed on April 01, 2004, for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/100,569 is acceptable and a RCE has been established. An action on the RCE follows.

Response to Arguments

2. Applicant's arguments with respect to claims 1 and 11 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claims 1-17 are objected to because of the following informalities:

"the bit error rate" in line 11 of claim 1 and line 15 of claim 11 should be changed to "a bit error".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification does not describe that "adjusting the power level of the desensitization signal based on the bit error rate for the receiver power level at the base station from the mobile unit." The specification only teaches that the power level of the desensitization signal is controlled by control circuit 29 or 37 which are not disclosed in the mobile unit.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 11, it is unclear where the bit error rate comes from. It seems the bit error rate is for the receiver power level as recited in claims. However, it cannot understand how the receiver power level has the bit error rate. The definition of the bit error rate is that the percentage of the received bits in error compared to the total number of bits received. There are no bits in the receiver power level. Furthermore, it

is unclear what is "from the mobile unit", the "adjusting" comes from the mobile unit or "the bit error rate" comes from the mobile unit.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

9. Claims 1-3, 5, 7-12 and 14-16 are rejected under 35 U.S.C. 102(a) as being anticipated by Soliman (US 5,675,581) and Webb (US 5,483,557).

As shown in figures 5-7 and 9, Soliman discloses a wireless system, a method of receiving a received signal (by 120) on a received path of a receiver, the method comprising:

(1) regarding claim 1:

injecting a desensitization signal (outputted from 114) into said receive path (120 and 116) to raise the noise level of said receive path relative to the level of said received signal without attenuating the received signal on the receive path so as to desensitize the receiver (column 13, line 52-column 14, line 29); and

adjusting the power level (controlled by 130) of the desensitization signal based on a specified ration of energy per information bit to noise energy, i.e. E_b/N_o to be received at the base station (column 14, lines 14-29 and column 10, line 5-column 11,

line 2). However, the E_b/N_o is related to BER as taught by Webb (see figures 8 and 11-15). Therefore, Soliman teaches that adjusting the power level (controlled by 130) of the desensitization signal based on BER as recited in claims.

(2) regarding claim 3:

providing a noise source (126) as said desensitization.

(3) regarding claim 10:

coupling (adder 116) said desensitization signal onto said receiver path.

(4) regarding claim 11:

a desensitization signal source (114) that is capable of producing a desensitization signal (output from 114) on a desensitization signal path;

a coupler (adder 116) connected to said desensitization signal path and said receive path and injects said desensitization signal (output from 114) into said receive path (120 and 116) to raise the noise level of said receive path relative to the level of said received signal without attenuating the received signal on the receive path so as to desensitize the receiver (column 13, line 52-column 14, line 29); and

means (130) for adjusting the power level of the desensitization signal based on a specified ration of energy per information bit to noise energy, i.e. E_b/N_o to be received at the base station (column 14, lines 14-29 and column 10, line 5-column 11, line 2). However, the E_b/N_o is related to BER as taught by Webb (see figures 8 and 11-15). Therefore, Soliman teaches that adjusting the power level (controlled by 130) of the desensitization signal based on BER as recited in claims.

(5) regarding claim 12:

said desensitization signal source comprises a noise source (126) as said desensitization.

(6) regarding claims 9 and 15:

attenuating (130) the desensitization signal prior to the step of injecting (column 14, lines 16-20).

(7) regarding claims 2 and 16:

amplifying (728 in figure 9) said signal on said receive path with an amplifier (RF AMP in 728); and

wherein said step of injecting further includes:

injecting said desensitization signal into said receive path after said amplifier (see figure 9) (column 19, lines 49-60).

(8) regarding claims 5, 7 and 14:

modulating (mixing) (430 in figure 7) a continuous wave signal (r_{eq}) using a modulating signal source (X_{eq}) to produce a modulated desensitization signal as the desensitization signal.

(9) regarding claim 8:

providing the continuous wave signal (r_{eq} in figure 7) to the adjustable attenuator (430, 600, 650, 455 and 300 in figure 7);

providing a modulating signal source (X_{eq}) to the adjustable attenuator (430, 600, 650, 455 and 300 in figure 7); and

attenuating by the adjustable attenuator (430, 600, 650, 455 and 300 in figure 7 and 280 in figure 6) said continuous wave signal using said modulating signal to produce the modulated desensitization signal (output from 280).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 4 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman (US 5,675,581) and Webb in view of Hall et al. (US 5,519,888, in paper #3).

Soliman and Webb disclose all of the subject matter as described above except for specifically including a continuous wave signal source producing a continuous wave signal on the desensitization path.

Hall et al. teaches a receiver comprising a continuous wave signal source (16 in figure 4) producing a continuous wave signal on the desensitization path.

One skilled in the art would have clearly recognized that to use different noise sources is merely a matter of design choice. For example, it may reduce cost to use a continuous wave signal on the desensitization path. As shown in figure 4, Hall et al. teaches the noise source is a continuous wave signal (16). Hall et al. also teach another embodiment (figure 9) in which the noise source is a pseudo-noise sequence.

The limitations in claims do not define a patentably distinct invention over that in the receiver of Jin et al. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the noise source of Soliman and Weaver, Jr. et al. by a continuous wave signal on the desensitization path as taught by Hall et al. so as to provide a common noise source and reduce cost in communication system.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shuwang Liu whose telephone number is (703) 308-9556.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin, can be reached at (703) 305-4714.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Shuwang Liu
Primary Examiner
Art Unit 2634

June 9, 2004